Supporting The Thames Valley Children's Influenza Immunisation Programme 2014/2015
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The Oxford AHSN Children’s Clinical Network

Figure 1: CCGs and Hospitals in the Thames Valley

Abbreviations and Clinical Commissioning Group (CCG) codes

SR South Reading CCG (10W)
NEWB Newbury CCG (10M)
NWR North and West Reading CCG (10N)
WOK Wokingham CCG (11D)
SL Slough CCG (10T)
WA&M Windsor, Ascot and Maidenhead CCG (11C)
B&A Bracknell and Ascot CCG (10G)
AV Aylesbury Vale CCG (10Y)
CHILT Chiltern CCG (10H)
OX Oxfordshire CCG (10Q)
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Vaccine knowledge Report

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Summary

The Children’s Network Nurses liaised with the Thames Valley Area Team (TVAT) in autumn 2014 to start to consider the factors that may contribute to the wide variation in uptake of the children’s flu vaccination in 2013/14. They worked and liaised with GP practices, Public Health and CCG leads, families and staff in Children’s Centres and professionals involved in children’s health across the region. They have identified some of the factors for low uptake and are now able to offer recommendations and support for the extended flu programme in the 2015/2016 season.

Those recommendations include:

- earlier provision of literature/leaflets/posters to health professionals
- earlier collection and dissemination of ‘best practice tips’ from high achieving practices
- facilitating collaborative working with Astra Zeneca’s (AZ) publicity material
- offering to present at all ten CCG educational events in the late Summer/early Autumn
- offering evidence that visits to community settings to promote the vaccine and gather evidence of local concerns enables local teams to take action accordingly
- contributing to the training programmes for health professionals involved in immunisation
Introduction

The Oxford AHSN Children’s Clinical Network

The Oxford AHSN Children’s Clinical Network brings together clinicians, academics and others who work with children to ensure that we have the very best care across Buckinghamshire, Berkshire and Oxfordshire\(^1\). Equity and innovation in child health are supported by a vibrant clinical and academic community caring for children across the Oxford AHSN region. The Children’s Clinical Network has identified a series of projects which will provide tangible benefits and improvements in the healthcare of children over the next five years.

Through active education and implementation of the latest guidelines for the management of children in primary and secondary care we will strive for equity in the delivery of healthcare across the Oxford AHSN region. We will build on the excellent links already developed within primary and secondary care, identify difficulties with the patient pathway and measure improvement.

There is ample evidence that hospitals which prioritise research provide better patient care and have better outcomes. There is significant variation in access to clinical research for children across the Oxford AHSN area — many hundreds of children are enrolled in clinical trials and observational studies in Oxford and Reading each year but only a handful in all other Trusts. The Children’s clinical network will work closely with the Clinical Research Networks and NHS Trusts to ensure that the appropriate research support is available so that all children and their families have the opportunity to take part in research projects.

Immunisation is the most cost-effective public health intervention and has substantial and measurable benefits in driving health in young children. Failure to maintain high vaccine coverage has serious consequences, as observed during the 2013 outbreak of measles in Swansea and in many regions of England. There is considerable variation in immunisation uptake in the Oxford AHSN area. We are working with NHS England and Public Health England Thames Valley to plan a programme targeting low take-up areas, with a specific focus initially on flu vaccination (Oxford Academic Health Science Network, 2015)

\(^1\) The Oxford AHSN region includes Milton Keynes and part of Bedfordshire. For multifactorial reasons, neither area was included in the this year’s programme
Flu immunisation Project Immunisation Document (PID)
The PID set out four objectives and four “deliverables” for the immunisation programme:

Objectives
- To identify areas of poor immunisation uptake within Oxford AHSN
- To identify the optimal approaches which have an impact on immunisation uptake in the Oxford AHSN by review of high performing practices and external evidence based interventions.
- To increase the uptake of flu vaccine by 2 and 3 year olds
- Go ‘live’ with the Vaccine Knowledge website and smart phone app

Deliverables
- Report on immunisation coverage across the Oxford AHSN, including identification of problem areas, good practice and potential solutions
- Increased uptake of flu vaccine in 2 and 3 year olds
- Availability of the Vaccine Knowledge app
- An increase in the use of the Vaccine Knowledge website

This report describes the extent to which these objectives and deliverables were met.

The Thames Valley Area Team Screening and Immunisation Manager said:
“The Thames Valley Area Team (AT) and Oxford AHSN have worked closely throughout the Children’s flu Immunisation project from co-operating on producing the action plan through the delivery phase and to evaluation. The Oxford AHSN Children’s Manager and Screening and Immunisation Lead from the AT met on a monthly basis; there were weekly teleconferences between the AHSN team and the AT Screening and immunisation manager to discuss progress and resolve any issues and the AHSN nurses and screening and immunisation co-ordinators liaised on a regular basis throughout the flu season. The Oxford AHSN children’s team were included in the AT flu planning and delivery with the children’s nurses attending a locality multiagency planning event and dialling into the fortnightly stakeholder teleconferences throughout the flu season. The AT and AHSN team had opportunity to attend and jointly present at a Slough CCG ‘STEPS’ event attended by doctors, nurses and practice managers from across the CCG.”

The Nurses can be contacted as below:

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Background

The national flu immunisation programme 2014/15

‘Following a recommendation in 2012 by the Joint Committee on Vaccination and Immunisation (JCVI) that the annual influenza vaccination programme should be extended to include all children aged two to under 17 years of age, the phased introduction of this extension began in 2013.

Extending the current flu vaccination programme to all children aims to lower the public health impact of flu by:
• protecting children and thus averting a large number of cases of flu in children
• reducing flu transmission in children thus protecting older adults and those with clinical risk factors and averting many cases of severe disease and flu-related deaths.

Studies commissioned by JCVI suggested that, despite the high cost, extending the flu vaccination programme to all children is highly likely to be cost effective and well below the established cost effectiveness threshold when indirect protection to the whole population is taken into account, particularly over the longer term. The cost effectiveness study also suggested that extending flu vaccination to children remained cost effective in circumstances where vaccine uptake by clinical risk groups was substantially increased’. (Public Health England, 2015)

The programme in 2013/2014 saw 2 and 3 year olds in the Thames Valley area (circa 58,455) being offered the Trivalent Fluenz® programme intranasal flu vaccine unless contraindicated and being vaccinated through GP services. In 2014/15 Fluenz Tetra® is being offered to ‘all children aged 2, 3 and 4 years (but not 5 years or older) on the 1 September 2014 (i.e. children whose date of birth is on or after 2 September 2009 and on or before 1 September 2012) will be offered the live attenuated influenza vaccine Fluenz Tetra®. Additionally, the Fluenz Tetra® vaccine should be offered to children aged between 2 and 18 years in clinical risk groups, unless contraindicated’ 2. These children will then be offered a suitable Intramuscular Vaccine (Department of Health et al, 2014).
Why vaccinate children?

- Healthy under-5s are more likely to be admitted to hospital with flu than any other age group – and 5 times more likely than 65-year-olds.
- Two million 2, 3 and 4-year-olds are eligible for the free nasal spray flu vaccine from their GP.
- Analysis shows that vaccinating half of all children aged between six months and four would prevent almost half a million cases of flu.
- But just over a quarter have received it so far (November 2014) – less than this time last year. And half of parents do not know the free spray exists or that children need vaccinating every year.
- Flu leads to hundreds of thousands of GP visits and tens of thousands of hospital stays a year.
- Young children are more likely to spread flu because they tend to have greater contact with others, and may not cover their mouths when coughing and sneezing or wash their hands enough.
- There are more than 15 million people in England with at least one long-term health condition and they are 11 times more likely to die if they catch the virus.
- The nasal spray vaccine offers the best protection for children and the only likely side effect is a slight runny nose for a short time. This year the free vaccine was extended to 4-year-olds and the aim is to gradually roll it out to all 2 to 16 year olds (Department of Health, 2014)

Thames Valley Region

Across the Thames Valley region in 2014/15, all children within the cohort (circa 87,625) will be offered Fluenz Tetra® (unless medically contraindicated when an alternative will be offered). Children in this region attending special school will be offered the vaccine through the school (one special school opted out).

Overview

The Oxford AHSN Children’s Clinical Network began work on this project on September 8th 2014. The Network was tasked by DH to maximise immunisation uptake and reduce inequity across the region.

The Children’s Network employed two experienced paediatric nurses both of whom have worked in immunisation programmes. Liz Davis, 0.6 whole time equivalent (WTE), commenced work on the 8th of September 2014 and Julie Wild 0.8 WTE on the 6th October 2014. The nurses’ role was to support Primary Care Teams, Public Health Teams & other key stakeholders with the on-going work of raising the uptake of the ‘flu vaccine for 2, 3 and 4 year olds. Data from last year’s programme show that there was wide variance in uptake across the region. The nurses worked closely with, and were advised by, TVAT. The target was to raise all Practices to 40% immunisation rate. The programme was known to become cost effective with 30% uptake (see PID above).
Variation across the region 2013 /2014

Funnel Plots (see Appendices for explanation)

Figure 1: Funnel plot demonstrating the variation of Fluenz Tetra® uptake in 2 year olds across the region and across practices of different sizes in 2013/14.

Figure 2: Funnel plot demonstrating the variation of Fluenz Tetra® uptake in 3 year olds across the region and across practices of different sizes in 2013/14.
Activity, Interventions and Collaboration:

The time line explained

- Professor Andrew Pollard, Clinical Co-Director of the Oxford AHSN Children’s Network, sent a letter to all CCG leads to introduce the nurses and explain their role in the Fluenz Tetra® programme.
- Graphs and tables were created from Immform Surveys 2013-2014 (the website which collates General Practices’ immunisation data) demonstrating the variation in uptake of the 242 practices within the 10 CCGs.
- An action plan was created at the request of the Screening and Immunisation Manager TVAT and updated as required.
- The Children’s Network Manager liaised with the Screening and Immunisation Lead
- PHE leaflet mailed out to all practices in the Thames Valley.
- All children’s ward and department sisters in hospitals throughout the region were sent leaflets and a letter signposting them to publicity about the vaccine
- Weekly telephone conferences or face to face meetings attended with Chris Cook, plus close liaison with the TVAT Screening and Immunisation Co-ordinators, (especially Harpal Aujal and Amber Codd) enabled interventions with practices to be fed back to them. The nurses and manager were provided with access to Immform.
• Fortnightly flu stakeholders teleconference - contact was made with CCG and Public Health leads. This enabled publicity and offers of support regarding the programme to be cascaded as to all schools, nurseries, and children’s centres.

• Practices across the Thames Valley achieving above 70% and above were contacted for their view on what made them successful. A ‘Best Practice Tips’ guidance was produced accordingly and cascaded to all Practices and health professionals throughout the region.

• Lowest achieving practices from 2013/2014 were telephoned and emailed and offered visits for face to face dissemination of best practice information. A summary of these visits and conversations were recorded and collated (see Figure 4).

• Network nurse gave presentation at ‘Slough STEPS’ (monthly educational meeting) on children’s flu vaccine and promotion of the Network on the 29th of October. Attended by around 200 GPs, practice nurses, practice managers and members of the local C.C.G. The nurses’ offer to speak at other CCG meetings was not pursued.

• The nurses were asked to identify a family whose child was willing to be photographed receiving the nasal flu vaccine. Links were made with the NHS England Communications Team and an article promoting the vaccine was duly published in the Oxford Mail on the 20th November 2014 http://www.oxfordmail.co.uk/news/11612343.8_000_extra_children_are_entitled_to_flu_vaccine/

• The Oxford AHSN nurses were asked to undertake promotional work in Children’s Centres in Slough by Dr Onteeru Buchi B Reddy, Public Health Programme Manager, Slough Borough Council (SBC), an area of low uptake. Donna Briggs, Senior Co-ordinator Family Learning, set up appointments. Visits to 8 out of the 10 centres took place in November and early December 2014. Promotional materials used were: leaflets about the vaccine in English, Urdu, Punjabi and Polish

• PHE posters, vaccine demonstrators and (when possible) the AZ film was shown. http://www.sharegoodtimesnotflu.co.uk/why-vaccinate.html Valuable feedback from families and centre staff was provided to TVAT and the Slough flu stakeholders (Figure 5).

• At the final Flu Stakeholder Teleconference Dr Onteeru Buchi B Reddy, Public Health Programme Manager, Public Health & Wellbeing, Slough Borough Council (SBC), when asked by T V A T for feedback on the approaches used in this year’s programme said:

“What I feel has made a difference in the Slough uptake of children’s flu vaccination this year are the community based, grass root interventions by the Oxford AHSN nurses. They liaised with me (Public Health) and children’s services (SBC). They organised meetings in early year’s settings. They visited practices, engaged with the parents, teachers and staff in Children’s Centres to dispel myths and promote vaccine uptake. The nurses shared this feedback with me, the GPs, PNs (practice nurses) and PMs (practice managers). At our STEPS event at Windsor Racecourse in October they provided a presentation about the vaccine. The internal intelligence about their visits to our children’s centres helped our area to be more aware and more focussed on the issue of children’s flu. I hope that they continue to support us every year and would recommend that other areas take this approach next year.”
• Prior to the children’s centre visits contact was made with the sole provider of the intra nasal flu vaccination for this year’s programme. Fluenz Tetra® ‘support packs’ (publicity and information for both professionals and families) are available. A film for children on the AZ website and in DVD form is also available. There was no evidence that practices used this sophisticated advertising material or knew it existed. Permission sought and received from Professor Pollard and TVAT to share these with Practices and for Oxford AHSN nurses to use them at children’s centre visits and practice visits. Fluenz Tetra® demonstrators are also available for professionals’ use. AZ has trialled billboard advertising for Fluenz Tetra® in Bristol this year. Once evaluated, this form of advertising may be offered to all English regions next season.

• On the 1st December 2014 a Special Newsletter was produced by the Oxford AHSN nurses following national and local concern regarding uptake at that point. Oxford AHSN nurses cascaded the newsletter to the 315 nurses on the OVG seminar mailing list; all 238 GP practices, HV teams (Oxon: 142 band 6/7, 41 band 4/5, 39 band 3. Berks: 200 HVs, Bucks: HVs number n/k), CCG and public health leads.

• Graphs were generated from Immform using the end of October Monthly GP Practice Data and sent to CCG leads with the overview of uptake across the region. They were then offered a breakdown of their individual data in the same format. Two CCG leads followed this up.

• Between the 9th of December and the 19th December the nurses phoned and emailed 75 practices highlighted as ‘outliers’ by TVAT using Week 48 Immform Data. Practices were contacted in order of priority according to uptake starting with those below 10% for any age group and moving to those with data below 30%. The ‘Best Practice Tips’, figures for their surgery, translated leaflets, and the Newsletter were all included in this communication. 29 Practices responded (38.6% response rate). No practices took up the offer of supportive visits. A summary of these practices’ concerns was generated (Figure 4).
PPIEE - Patient and public involvement, engagement and experience

What do we mean by involvement?
How patients and the public will be involved in the structures and processes of the work i.e. through mechanisms such as governance, priority setting, teaching and education, identification of the need for innovation, assessment of technologies.

What do we mean by engagement?
How patients and their carers will be supported to be active participants in their own care through approaches such as personalised care planning and shared decision-making.

What do we mean by experience?
How the subjective experience of patients is captured and utilised for quality improvement.

(Oxford Academic Health Science Network, 2014)

The following examples demonstrate the project’s consideration of PPIEE:
Involvement:

1. Flu Stakeholders told us what helped in their areas was our outreach work in communities and education for professionals to promote the vaccine. Proposals for support by Oxford AHSN Children’s Network nurses for next year will include this.

2. Collaboration with AZ to investigate use of their promotional material demonstrated an innovative approach to disseminating health messages, both to the public and professionals, and aimed to address views that publicity was lacking.

Engagement:

1. You said…Parents told us they had not heard about the vaccine, that they had thought it was an injection, that they had not been called by their GP and that they were not aware of the potential complications.

   We did…We provided publicity material for professionals and community settings, leaflets about the vaccine in four languages for families, asked them to contact their practices to make an appointment for the vaccine, by using A Z demonstrators showed them how the vaccine was given, put up posters in children’s centres, sent information about the vaccine and a link to posters to all head teachers via Local Authorities in the region.

2. You said…Practices told us there was a lack of publicity about the vaccine and that promotional material arrived during the flu season not before it. One practice had not heard the vaccine was in the routine immunisation programme.

   We did….We provided more promotional material, met with AZ to explore their advertising, provided practices with a link to the AZ film, supported arranging a photo-shoot of a child receiving the vaccine which was published in The Oxford Mail by the Thames Valley Area team, provided practices with the appropriate Read Code to submit the data and provided correct cohort age range. We will offer support for next year’s programme with early publicity and promotion.
Experience:

1. We visited the John Radcliffe and Horton Hospitals’ children’s wards and Emergency Departments and offered publicity material. Staff appeared generally unaware of the flu programme. Leaflets and posters were provided.

2. Feedback was collated from General Practice contacts and children’s centre visits (Figures 4 and 5) which enabled proposals to be made for improving the quality and quantity of future publicity on the children’s flu vaccination programme.
Assessing the Impact

Below are three case studies which illustrate the impact of visiting a Practice:

**Practice 1.**
- Network nurse talked at local monthly meeting of GPs, PNs and PMs to explain the evidence for the children's flu vaccine.
- Practice 1. was visited by network nurse 30.10.14 following discussion with PM about low uptake of three year olds in 2013/2014 season as table below:

<table>
<thead>
<tr>
<th></th>
<th>2 year olds</th>
<th>2 Year combined Cohort:</th>
<th>3 year olds</th>
<th>3 Year combined Cohort:</th>
<th>3 Year % combined Cohort:</th>
<th>4 year olds</th>
<th>4 Year combined Cohort:</th>
<th>4 Year % combined Cohort:</th>
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<td>% Cover</td>
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<tr>
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<td>313</td>
<td>111</td>
<td>35.5</td>
<td>325</td>
<td>118</td>
<td>36.3</td>
</tr>
</tbody>
</table>

- Discussed ‘Best Practice Tips’ (see page 10)
- Provided signposting to advertising (see page 11)
- Provided leaflets
- Later in season provided leaflets in translation (see page 12)

**Practice 2.**
Practice Nurse (PN) off sick, practice declining visit re low uptake for 2014/2015 (as below) until her return.

<table>
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<th>2 year olds</th>
<th>2 Year combined Cohort:</th>
<th>3 year olds</th>
<th>3 Year combined Cohort:</th>
<th>3 Year % combined Cohort:</th>
<th>4 year olds</th>
<th>4 Year combined Cohort:</th>
<th>4 Year % combined Cohort:</th>
<th>Programme year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
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<td>% Cover</td>
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<td>registered</td>
</tr>
<tr>
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<td>NA</td>
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<td>57</td>
<td>35.6</td>
<td>126</td>
<td>48</td>
<td>38.1</td>
</tr>
</tbody>
</table>

- Persuaded to accept visit before this to discuss ways of starting programme in her absence
- Visited by Oxford AHSN nurse 11.11.2014
- Met with PM and GP
- Discussed possibility of GPs giving Fluenz Tetra® opportunistically
- Demonstrated administration of Fluenz Tetra® to GP and signposted to NHS Scotland video ‘How to administer’ in order for her to administer in PN absence
- Signposted to promotional material as no advertising evident in waiting room for children
- Provided ‘Best Practice Tips’– not heard of ‘hot key’ for quick data entry
- Later in season provided leaflets in translation
Practice 3.

- Phone call to practice manager 03.11.14. Arranged a meeting with the GP

<table>
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<th>2 Year combined Cohort</th>
<th>3 year olds</th>
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<td>NA</td>
<td>11.5</td>
<td>NA</td>
<td>NA</td>
<td>69.2</td>
<td>2014/2015</td>
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</tr>
<tr>
<td>2014/2015</td>
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<td>71.4</td>
<td>15</td>
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<td>26</td>
<td>18</td>
<td>18</td>
<td>69.2</td>
<td>2014/2015</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

- Practice visit by both network nurses, 05.11.14
- Discussion with GP about low uptake of two and three year olds in 2013/2014 season as per table
- GP unaware of vaccine programme. Had administered intramuscularly in 2013/2014
- Advised that he use Immform to order the vaccine
- GP signposted to NHS Scotland video ‘How to administer’ in order for him administer the vaccine (no PN)
- Discussed ‘Best Practice Tips’ (see page 10)
- Provided signposting to advertising as none in reception (OXFORD AHSN newsletter)
- Provided leaflets
- Provided EMIS (GP computer system) codes for his data entry
- GP stated he would administer the vaccine at midday clinics and afternoon clinics and opportunistically and wanted a letter when he got 100%
- Later in season provided leaflets in translation
Variation across the region 2014/15

Funnel Plots (see Appendices for explanation)

Figure 3: Funnel plot demonstrating the variation of Fluenz Tetra® uptake in 2 year olds across the region and across practices of different sizes in 2014/15.

Figure 4: Funnel plot demonstrating the variation of Fluenz Tetra® uptake in 3 year olds across the region and across practices of different sizes in 2014/15.
Figure 6: Funnel plot demonstrating the variation of Fluenz Tetra® uptake in 4 year olds across the region and across practices of different sizes in 2014/15

Comparison of Variation in Uptake Across the Region 2013/2014 and 2014/15

Figure 7: Seasonal Fluenz Tetra® % Uptake for all two year olds in the different Thames Valley CCG’s 2013/14 compared with 2014/15
Figure 8: Seasonal Fluenz Tetra® % uptake for all three year olds in the different Thames Valley CCG’s 2013/14 compared with 2014/15

Figure 9: Seasonal Fluenz Tetra® % uptake for all 4 year olds across the Thames Valley CCG’s 2014/15 (first year for this age cohort)
Summary of Findings

Variation in Fluenz Tetra® vaccine uptake over 2013/14 and 2014/15 is demonstrated in Figures 1 to 9. The actual number of children immunised in 2014/15 was higher than the previous year (4 year olds eligible in 2014/15 (Figure 10)).

The project has resulted in successfully establishing networking links and engagement with TVAT and flu stakeholders in 3 counties which will enable the programme to start from a consolidated position in 2015/16. Following the network launch, the nurses have also made links with professionals involved in paediatric health across the region which should help facilitate future work and projects.

Proposals and recommendations for the 2015/2016 season are based on the premise that earlier and more extensive advertising, publicity and education about the vaccine, both for families and professionals, should ensure an increased uptake in future years.
A summary of Practices’ concerns and comments generated from all contacts made to Practices by the nurses during the 2014/15 Influenza season.  
(Grouped in accordance to 2013/14 uptake).

### Overview of 0-9% in 2013/14
- Advertising Lacking
- Few opportunistic invites
- Letter and phone call invites lacking
- Few flexi clinics
- Porcine Gelatine issues
- No vaccine supply issues
- Language barriers

### Overview of 10-19% in 2013/14
- Limited advertising
- Limited phone invites
- Few flexi clinics
- Nurses only immunising
- Porcine gelatine concerns
- Parents not responding to invites

- The Practices above appearing not to adhere to ‘Best Practice Tips’ (see page 14)
- The Practices below appearing to adhere to ‘Best Practice Tips’, however parental engagement is apparently lacking

### Overview of 20-29% in 2013/14
- ‘You can lead a horse to water…’
- Appeared to adhere to ‘Best Practice Tips’ (see below)
- Parents not responding to invites
- Parents want more information
- Appointments not being kept
- Hep A outbreak in one area
- Parents did not want to over vaccinate

### Overview of 30-39% in 2013/14
- Appeared to adhere to ‘Best Practice Tips’ (see below)
- Parents not responding to invites
- Parents ‘not interested this year’
- Flexi clinics not being filled.

### Overview of 50-59% in 2013/14
- Appeared to adhere to ‘Best Practice Tips’
- ‘word of mouth’ message that ‘this is a ‘live’ vaccine was doing the rounds at our local nursery school and that this had unfortunately deterred many parents from bringing their children to the surgery’.

### Overview of 70%+ in 2013/14

20
# Summary of contacts with staff and families at Slough children’s centres 2014/15

## Lack of Programme Awareness
- Unaware of children’s flu programme
- Unaware that their child was eligible
- Unaware about the nasal flu spray
  - One mum had a good understanding of the flu, but did not know about the vaccine
    - Had a letter and forgotten
    - Did not realise annual
  - Thought it was only children with chronic illness

## Negative Advertising
- Had read an article in the newspaper about a child being brain damaged post flu vaccine
- Mum had had it and then read about it and was worried. Said she had read the NHS website and felt better but said some of the media was scary

## Resources
- OXFORD AHSN Children's Clinical Network Nurse
- NHS ENGLAND LEAFLETS: ‘5 reasons’ ‘Which vaccine?’
- FLUENZ TETRA demonstrator
- Translated leaflets
- Astra Zeneca Film

## STAFF
- Staff limited knowledge of the programme.
  - Watched the films
  - Asked questions
  - Volunteered to promote the vaccine by handing out leaflets

## Confidence in GP’s
- Majority say will now contact GP to make appointment

## Lack of vaccine Knowledge
- Concerned about over vaccinating

## Porcine Gelatine?
- Concerns from a vegetarian

## Religious concerns:
- Some happy it was ‘transformed’ (Halal) and had received the vaccine
- Some not happy it was ‘transformed’
- Some wanting more information. Advised to speak to GP and religious leaders and signposted to the latest information
• The effectiveness of chasing practices by telephone or email requires further discussion.
• Acknowledgement that porcine gelatine content of the vaccine may be a concern for some families

Proposals for 2015 -2016

• PHE has leaflets and posters of the complete childhood immunisations programme which includes flu vaccine. Practices to replace old versions with this new version now:
  • Pre-school Immunisations
  • The complete routine immunisation schedule from summer 2014
  • Routine childhood immunisations from July 2014
  • Maintain collaboration with Astra Zeneca about use of their promotional material, possible use of billboard advertising, AZ film and use of Immform for cascading promotional packs
  • Obtain ‘Best Practice Tips’ from 14/15 season high achievers early in order to share early – include tips from those who significantly increased from low to 40% in 2014/15
  • Early communication with Practices (August and September) about how to obtain publicity materials
  • Early education for parents regarding the nasal spray – i.e. use of AZ film in community settings
  • Prepare early (September) for October photo opportunity of a child receiving vaccine – publicise region wide, not just Oxfordshire
  • Early promotional material sent out (September) across regions hospitals, schools, nurseries and children’s centres.
  • Investigate engaging a local celebrity parent talking about having their child vaccinated?
  • Be involved in training/education and support for health professionals (once known who is provider for extended programme) regarding the efficacy of programme (OVG seminar attendance already booked for 18.3.15)
  • Network nurses’ attendance at Local Authority flu planning events (Spring 2015)
  • Network nurses’ attendance at Flu stakeholder workshop (date TBC)
  • Liaise with TVAT about the nurses’ possible attendance at The National Flu Conference 2015
  • Training/education slots booked in early (September and October) for each CCG
  • Networking in the local community (children’s centre and nursery visits, direct liaison with CCG and public health leads, presenting at GP Practice staff events) does appear to increase uptake and support local staff. Propose Oxford AHSN nurses facilitate this approach in all areas next season.
  • Provide a different approach to TVA team’s Immunisation Coordinators in line with the positive feedback from stakeholders i.e. community, grass roots promotion of the vaccine for families and professionals.
  • NHS England piloted television advertising in the North East of England this year. Await that feedback as possibility it will be nationwide next flu season.
  • Children’s network to consider investing in / liaising with AZ to purchase items that advertise the children’s flu vaccination e.g. a bag to carry nurses’ resources in the community, car stickers
Email signature containing flu promotional message used by all children’s network team members

Create immunisation E learning package in conjunction with Vaccsline (vaccine advice for clinician’s service). [http://www.ovg.ox.ac.uk/vaccsline](http://www.ovg.ox.ac.uk/vaccsline)

Offer the findings from our project to the wider geography in the Oxford AHSN in order to afford availability of data to assist the providers across the region.

Next Steps

- Early work with Astra Zeneca on publicity campaigns and promotional material – what else can they offer?
- Meet with TVAT to discuss our proposals (confirmation of date pending).
- Attend flu stakeholder workshops and Local Authority planning events
- Keep abreast of developments with National Flu Team commissioning arrangements for the extended programme for 5 and 6 year olds.
- Nurses to keep updated on immunisation developments by attending appropriate training days
- Nurses to review the outcomes of 2014/2015 UK children’ flu s programmes and to keep abreast of 2015/2016 UK programmes. An understanding of Scotland and Ireland school based programmes may support proposals for NHS England programmes.

Future

- Consider a ‘Consent Phone App’ for the flu programme in schools. Pilot studies have shown that the paperwork element of the Fluenz Tetra® Immunisation programme administration is the most time consuming. An innovative solution to this could be to work with a phone company or AZ to create a phone App that would allow parents to consent for the vaccine this way. Vaccine history is minimally complex for this particular vaccine. Basic requirements for consent are:
  1. Have they had the vaccine since autumn 2015?
  2. Do they have any medical conditions?

Electronic medical consent is an evolving field of exploration.
References


APPENDICES

Funnel Plots

To compare individual institutions against averages, funnel plots were constructed. A template for funnel plots from Public Health England was used [4]. Funnel plots are an effective way of displaying variation across different institutions. In funnel plots an observed measure in this case admission rate, is plotted against a measure of its precision. In such a plot sample size (in this case population) is displayed along the x axis (see fig 2). Lines showing +/- 2 standard deviations (SD) and then +/- 3 SD are then plotted. These lines form a funnel as with smaller and smaller sample sizes the size of these confidence limits get larger and larger.

For example, below we can see that the average admission rate in England for this condition is approximately 450 admissions per 100,000 population per year. For CCG’s with smaller populations the lines showing +/- 2 SD or +/- 3 SD form a funnel. Four CCG’s are shown. The colours are as follows:

- RED = significantly (3 sigma) HIGHER admission rate vs national average. There is only a 1:1000 chance that this variation is due to chance.
- AMBER = consistent with the national average i.e. lies within 3 standard deviations of the expected variation around the national average
- GREEN = Significantly (2 sigma) LOWER admission rate vs. national average
Vaccine Knowledge Website and iPhone App

Background

Immunisations can be a complicated and contentious issue. Professor Pollard, Children’s Clinical Network lead for the Oxford AHSN felt there was a need for an independent website about vaccines and infectious diseases which was not linked to the NHS or the UK government. The idea stemmed from discussions with families attending clinics at the John Radcliffe Hospital who were reluctant to engage in the children’s routine immunisation programme.

The Vaccine Knowledge (VK) website was developed at the Oxford Vaccine Group (OVG), part of the Department of Paediatrics at the University of Oxford. It is overseen by these academic staff at the cutting edge of vaccine research and is continually updated for accuracy.

Since the websites’ launch in December 2012, there have been visitors from across the globe. The highest numbers, after the United Kingdom, are the United States of America, Canada and Australia. There have been over 300,000 page views. This represents nearly 200,000 users.

The site provides independent, evidence-based information about vaccines and infectious diseases. All the content is aimed at the general public; it collates information and is backed up with references to scientific research. The content is designed to help people make informed decisions about vaccine issues. Vaccines have been so successful that many serious infectious diseases are now rarely seen in the UK. The site contains powerful, short films showing the impact that infectious diseases, covered by the current immunisation programme, have had on individuals and their families.

The UK immunisation schedule has become increasingly complex, with 14 immunisations against 12 diseases due before a child starts nursery. The Children’s Influenza programme began in Autumn 2013. As a result, the VK website Influenza information went live in June 2013. It was substantially updated in September 2013 to reflect the planned roll out of the programme. This continues to evolve.

In 2013 use of smart phones increased to 31 million users in the UK. In summer 2013 development started on the Vaccine Knowledge iPhone app. This will enable the VK website content to be tailored to people’s phones.
Overview
The website design was overseen by Professor Pollard, drawing on feedback and information gleaned from families attending his clinics.

The information for the website uses a number of resources including the ‘Immunisation against Infectious Disease or the Green Book’ produced by Public Health England (PHE), PHE epidemiology data, Joint Committee on Vaccination and Immunisation (JCVI) publications, Medicines and Healthcare products Regulatory Agency (MHRA) publications and current vaccinology research. Media reports, NHS Choices and user feedback help to shape the website content and answer the public’s concerns.

The VK Website was launched in December 2012 providing information on all vaccines in the current childhood routine schedule.

The schedule changed significantly in 2013. This included the introduction of the nasal influenza vaccine Fluenz® (trivalent live attenuated vaccine (LAIV)) for two and three year olds. Information about this vaccine and the programme was added to the website in June 2013. It was updated in 2014 following the introduction of Fluenz Tetra® (quadrivalent LAIV) to the programme.

The Flu Vaccines page on the Vaccine Knowledge website went live in June 2013 and by October 2013 was becoming relatively well-visited. There were 2,245 pageviews in the 6 months from August 2013 to January 2014, meaning that in this period the page had already exceeded the target figure set as a KPI, of 1,000 visitors. In the past year traffic on the page has increased dramatically, with nearly 14,000 pageviews in the 6 months from August 2014 to January 2015 – a more than 6-fold increase, well exceeding the target set for 2018. (Figure 1). It is not known exactly how many of these views are from the United Kingdom (UK), but for the website as a whole about a third of pageviews come from UK users. This is monitored on a bi-weekly basis.

Figure 1: Number of views on the influenza vaccine page of the Vaccine Knowledge website from it’s’ launch on June 1 2013 to 31st of January 2015
Users are able to ‘like’ and ‘dislike’ films. Emails from website visitors are used to improve and extend the information on the website. The Project also manages a Twitter feed. This has had positive comments.

Work on the iPhone app has continued since summer of 2013. The original version was internally evaluated by iPhone users at OVG in early 2014. This identified areas that required further work and rewriting of the app to ensure that it functions properly on current iPhone platforms.

We expect the first version of the iPhone app to be launched in April 2015.

**PPIEE - Patient and public involvement, engagement and experience**

**Involvement**

Funding is required:

To formally assess the VK website
To formally assess the iPhone app once launched to ensure that it is meeting the public’s needs.

**Engagement:**

You said… I was told last year there were crushed insects as part of the influenza vaccine. Being allergic to said ingredient I assumed that was why last year my arm inflamed and was a discomfort for two weeks.

We did…there is a ‘recombinant technology’ that involves growing proteins from flu viruses in insect cells as they can be grown in large quantities. The protein is not harmful at all; it just happens to be the part of the flu virus that our immune system recognises so that it creates antibodies to protect against the flu virus. The virus protein is harvested from the insect cells and purified to make an egg-free vaccine. It is theoretically possible that very tiny traces of insect cell could remain in the vaccine, but this is extremely unlikely.

You said… The Project manager received several emails pertaining to differences in country schedules

We did….This led to a new page on VK website called ‘Vaccination Schedules in Other Countries’, explaining why schedules differ and how the UK programme is decided. It also directs families new to the UK on how to continue their child’s vaccination programme

**Experience:**

- Emails from users wanting to discuss their vaccine experience are used to update the website or update the Frequently Asked Questions (FAQ) section. This included Porcine Gelatine content in vaccines. One user recently said: *‘Thank you for an excellent website. This is the best site I have come across for comprehensive and accurate information about vaccinations in the UK.’*
Proposals for 2015-2016

- Continue to update the VK website and utilise feedback from users
- Launch of the iPhone app
- Provide more information on topics such as how the immune system works and the different ways of making vaccines using short animated sequences to explain
- Film of Noel McCarthy talking about how vaccines work and how immune system works

Future

- Funding dependent evaluation:
  - the VK website
  - of the VK films
  - of the iPhone app
- E-learning for Health Professionals linked to the website
- Video of the impacts of influenza on children.
- Flu video - consider linking with AZ

iPhone app

- The next phase will be to adapt the app for all smart phones.

References

Vaccine knowledge webpage, last updated February 2015 Children. Available at:
http://www.ovg.ox.ac.uk/vaccine-knowledge-home (Accessed 06/03/15)